Munich Cancer Registry

ICD-10 C61: Prostate cancer

Survival

Year of diagnosis	1988-1997	1998-2014
Patients	7,399	46,512
Diseases	7,399	46,513
Cases evaluated	6,616	37,880
Creation date	04/11/2016	
Export date	12/23/2015	
Population (males)	2.28 m	

Munich Cancer Registry at Munich Cancer Center
Marchioninistr. 15
Munich, 81377
Germany

http://www.tumorregister-muenchen.de/en

ICD-10 C61: Malignant neoplasm of prostate
Period of diagnosis
Relative survival 1988-2014

N=44,148

Period of diagnosis

1988-1997
n=6,608   15.0%

1998-2006
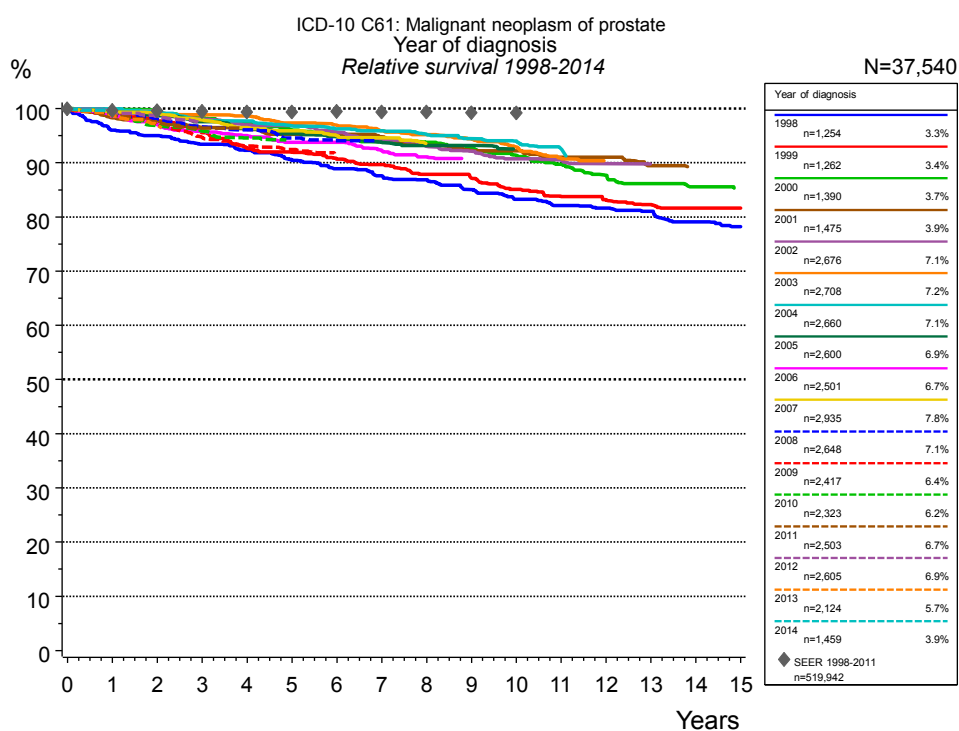n=18,526   42.0%

2007+
n=19,014   43.1%
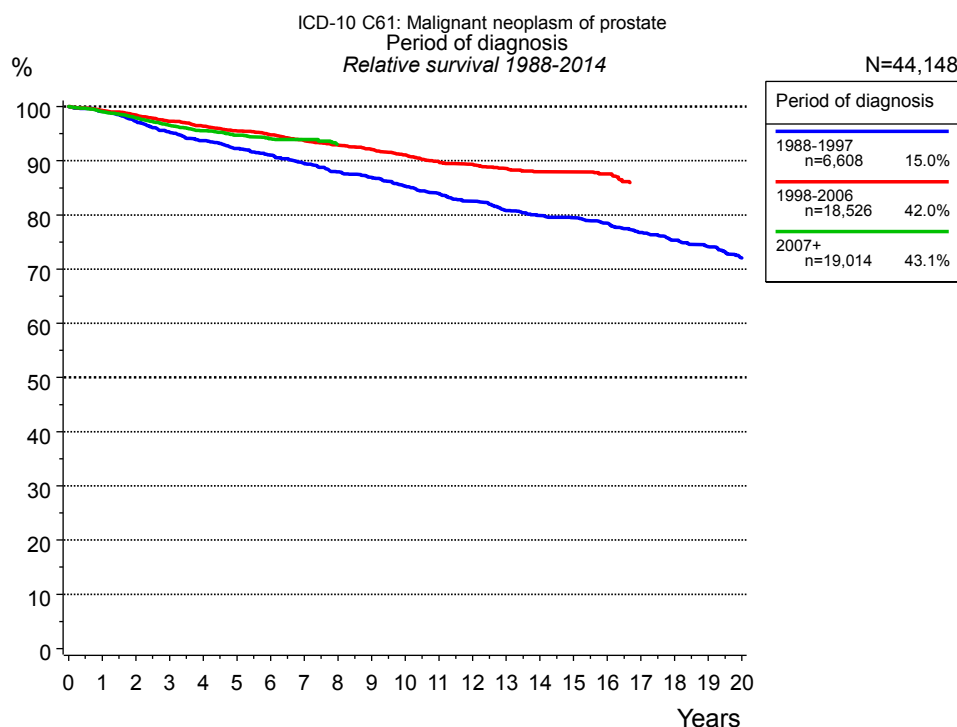
Figure 1a. Relative survival of patients with prostate cancer by period of diagnosis. Included in the evaluation are 44,148 cases diagnosed between 1988 and 2014.

The presented survival curves are derived from clinical records with valid follow-up informations, which means that death certificate cases (DCO) cases are omitted from the analysis. With this one restriction, the MCR has provided population-based statistics since 1998, collecting data on all cancer cases in the region of southern Bavaria. Historical data of previous time periods can be heavily selected, therefore, univariate survival comparisons of the presented time periods must be carefully considered. Nonetheless, all calculable survival curves are depicted to facilitate the comparison of long time follow-up analyses of relative survival between particular cancers.

	Period of diagnosis					
	1988-1997 n=6,608		1998-2006 n=18,526		2007+ n=19,014	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	94.4	99.1	95.9	99.3	96.1	99.0
2	88.2	97.3	91.8	98.4	92.1	97.9
3	82.4	95.3	87.7	97.3	87.9	96.5
4	77.2	93.7	83.8	96.4	84.2	95.5
5	72.3	92.2	80.1	95.5	80.6	94.7
6	67.9	91.0	76.6	94.8	77.2	94.0
7	63.6	89.5	72.9	93.7	74.3	93.9
8	59.5	87.9	69.4	92.9		
9	55.9	86.9	66.0	92.1		
10	52.1	85.3	62.5	91.1		
11	48.7	84.0	58.9	89.8		
12	45.5	82.5	55.9	89.3		
13	42.0	80.8	52.6	88.5		
14	39.3	79.9	49.7	87.9		
15	36.9	79.4	47.2	87.9		
16	34.2	78.4	44.4	87.6		
17	31.4	76.7				
18	29.0	75.3				
19	26.5	74.1				
20	23.9	72.0				

Table 1b. Observed (obs.) and relative (rel.) survival of patients with prostate cancer by period of diagnosis for period 1988-2014 (N=44,148).

ICD-10 C61: Malignant neoplasm of prostate
Year of diagnosis
Relative survival 1998-2014

Figure 1c. Relative survival of patients with prostate cancer by year of diagnosis. Included in the evaluation are 37,540 cases diagnosed between 1998 and 2014.
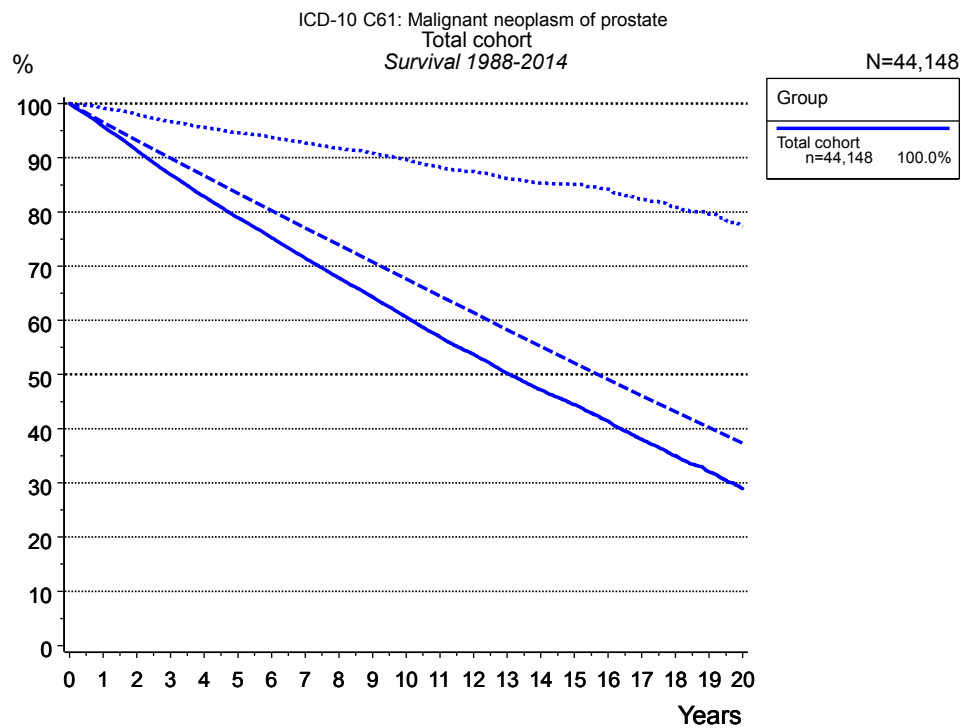
The survival results of the SEER program (Surveillance, Epidemiology, and End Results) of the American National Cancer Institute (NCI) are summarized as the period of diagnosis from 1998 to 2011, and are represented by gray diamonds in order to facilitate comparisons between MCR and SEER.

	Year of diagnosis													
	1998 n=1,254		1999 n=1,262		2000 n=1,390		2001 n=1,475		2002 n=2,676		2003 n=2,708		2004 n=2,660	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	92.1	96.0	95.2	99.0	96.5	99.9	94.9	98.3	96.1	99.6	96.8	99.6	97.0	99.9
2	87.6	95.0	90.4	97.7	92.2	99.3	90.9	97.7	92.1	98.9	93.2	99.5	93.2	99.3
3	82.7	93.4	85.0	95.5	87.9	98.3	86.7	96.5	88.0	98.0	89.7	98.8	89.0	97.9
4	78.4	92.3	79.3	92.7	83.8	97.3	83.2	96.2	84.1	97.0	86.3	98.7	86.0	97.7
5	73.7	90.5	75.8	92.0	79.4	96.1	79.6	95.2	81.1	96.8	82.2	97.4	82.2	96.8
6	69.6	88.9	71.7	90.7	75.6	95.1	76.7	95.2	77.0	95.7	78.8	96.9	78.9	96.2
7	65.8	87.6	68.3	89.7	72.1	93.9	73.0	94.8	73.0	94.3	75.1	95.9	75.7	95.9
8	62.5	86.9	64.5	87.9	68.7	93.8	69.0	93.4	69.2	93.0	71.8	95.2	72.4	95.2
9	58.6	85.0	61.0	87.1	65.2	92.8	65.4	92.3	65.7	92.1	68.3	94.5	69.0	94.4
10	54.9	83.3	57.1	85.1	61.3	91.4	62.8	92.2	62.4	90.7	64.3	92.9	65.7	94.0
11	51.7	82.1	53.8	83.8	57.6	89.7	59.3	91.0	59.1	90.5	60.0	90.8	62.5	92.5
12	48.9	81.6	51.0	83.1	53.7	87.7	56.5	91.0	56.4	89.8				
13	46.3	81.0	48.1	82.3	50.4	86.1	52.7	89.4						
14	43.0	79.1	45.6	81.6	47.4	85.5								
15	40.2	78.2	43.9	81.6										

	Year of diagnosis												
cont'd	2005 n=2,600		2006 n=2,501		2007 n=2,935		2008 n=2,648		2009 n=2,417		2010 n=2,323		2011 n=2,503	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	96.4	99.5	95.5	98.5	96.4	99.3	96.1	99.0	95.9	98.8	95.9	98.9	95.8	98.7
2	92.6	98.7	91.1	97.1	93.3	99.1	92.1	98.0	91.4	97.1	91.2	96.9	91.6	97.5
3	88.7	97.6	87.1	95.8	89.3	97.9	87.9	96.6	86.4	94.7	87.3	95.8	87.7	96.4
4	84.4	96.3	83.5	95.0	85.1	96.5	84.8	96.0	82.4	93.1	83.3	94.5		
5	80.9	95.3	79.7	93.8	81.9	95.9	80.4	94.5	79.0	92.4				
6	77.4	94.7	76.9	93.8	78.2	95.0	77.1	94.1						
7	73.8	93.8	72.6	92.2	75.0	94.5								
8	70.9	93.2	68.9	91.1										
9	67.7	93.2												

|	Year of diagnosis					
cont'd	2012 n=2,605		2013 n=2,124		2014 n=1,459	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	96.2	99.2	95.7	98.7	97.3	99.7
2	92.6	98.6	91.3	96.9		

Table 1d. Observed (obs.) and relative (rel.) survival of patients with prostate cancer by year of diagnosis for period 1998-2014 (N=37,540).

ICD-10 C61: Malignant neoplasm of prostate
Total cohort
Survival 1988-2014

N=44,148

| Group |
|---|
| Total cohort n=44,148   100.0% |

Figure 2a. Observed, expected and relative survival of the total cohort with prostate cancer. Included in the evaluation are 44,148 cases diagnosed between 1988 and 2014.

	Group Total cohort n=44,148	
Years	obs. %	rel. %
0	100.0	100.0
1	95.7	99.2
2	91.4	98.0
3	86.9	96.7
4	82.9	95.6
5	78.9	94.6
6	75.2	93.8
7	71.5	92.7
8	67.8	91.8
9	64.3	90.9
10	60.6	89.7
11	57.0	88.3
12	53.8	87.5
13	50.2	86.2
14	47.2	85.3
15	44.5	85.1
16	41.4	84.2
17	38.0	82.4
18	35.0	80.9
19	32.0	79.6
20	29.0	77.3

Table 2b. Observed (obs.) and relative (rel.) survival of the total cohort with prostate cancer for period 1988-2014 (N=44,148).

ICD-10 C61: Malignant neoplasm of prostate
Age category
Observed survival 1988-2014
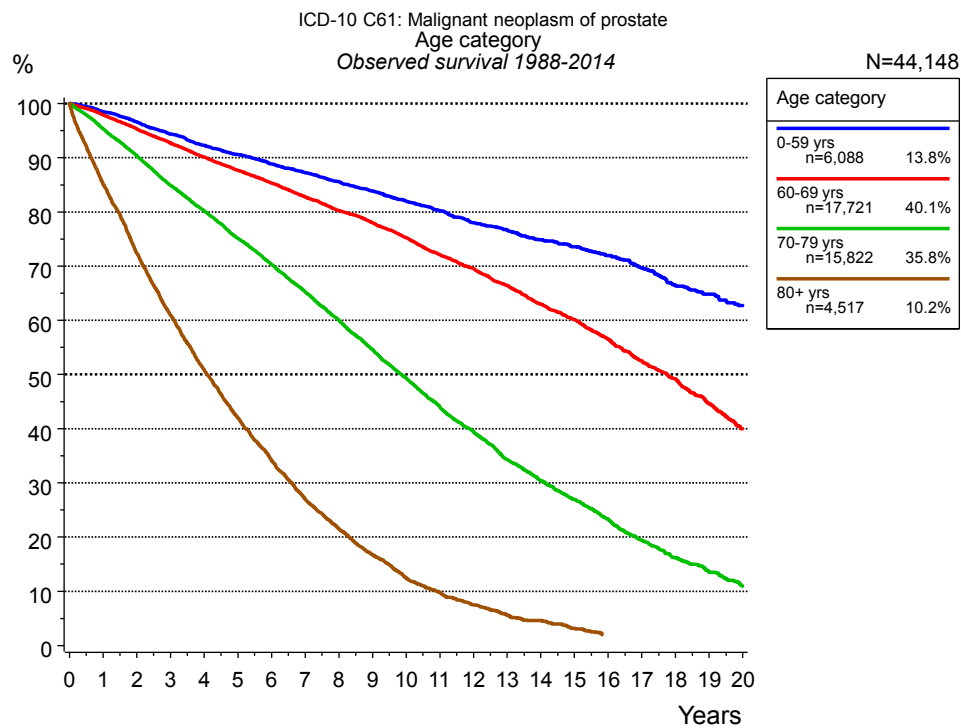
Figure 3a. Observed survival of patients with prostate cancer by age category. Included in the evaluation are 44,148 cases diagnosed between 1988 and 2014.

ICD-10 C61: Malignant neoplasm of prostate
Age category
Relative survival 1988-2014
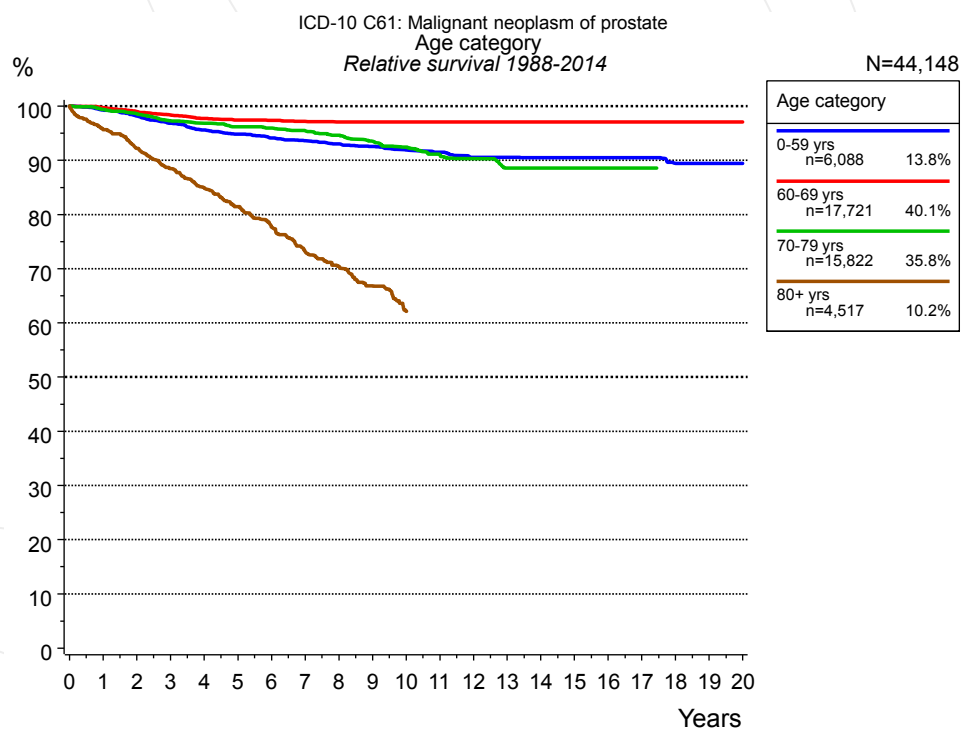
Figure 3b. Relative survival of patients with prostate cancer by age category. Included in the evaluation are 44,148 cases diagnosed between 1988 and 2014.

	Age category							
	0-59 yrs n=6,088		60-69 yrs n=17,721		70-79 yrs n=15,822		80+ yrs n=4,517	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	98.5	99.3	97.9	99.7	95.3	99.4	85.0	95.7
2	96.6	98.2	95.3	99.0	90.4	98.6	72.4	92.2
3	94.4	96.8	92.7	98.3	84.9	97.3	61.0	88.5
4	92.3	95.6	90.1	97.7	80.2	96.9	50.9	85.0
5	90.6	94.8	87.7	97.4	75.1	96.2	42.0	81.4
6	88.9	94.1	85.3	97.3	70.3	95.9	34.1	77.6
7	87.2	93.6	82.8	97.2	65.3	95.4	27.0	73.2
8	85.5	93.0	80.2	97.1	60.0	94.6	21.6	70.4
9	83.9	92.5	78.0	97.1	54.6	93.5	16.8	66.8
10	82.0	91.9	75.3	97.1	49.3	92.4	12.5	62.1
11	80.2	91.5	72.1	97.1	44.0	91.1		
12	78.0	90.6	69.6	97.1	39.4	90.2		
13	76.5	90.6	66.4	97.1	34.3	88.5		
14	74.9	90.5	63.0	97.1	30.4	88.5		
15	73.6	90.5	60.1	97.1	27.0	88.5		
16	71.9	90.5	56.5	97.1	23.3	88.5		
17	69.7	90.5	52.5	97.1	19.3	88.5		
18	66.5	89.5	49.2	97.1				
19	64.8	89.4	44.6	97.1				
20	62.7	89.4	40.0	97.1				

Table 3c. Observed (obs.) and relative (rel.) survival of patients with prostate cancer by age category for period 1988-2014 (N=44,148).

ICD-10 C61: Malignant neoplasm of prostate
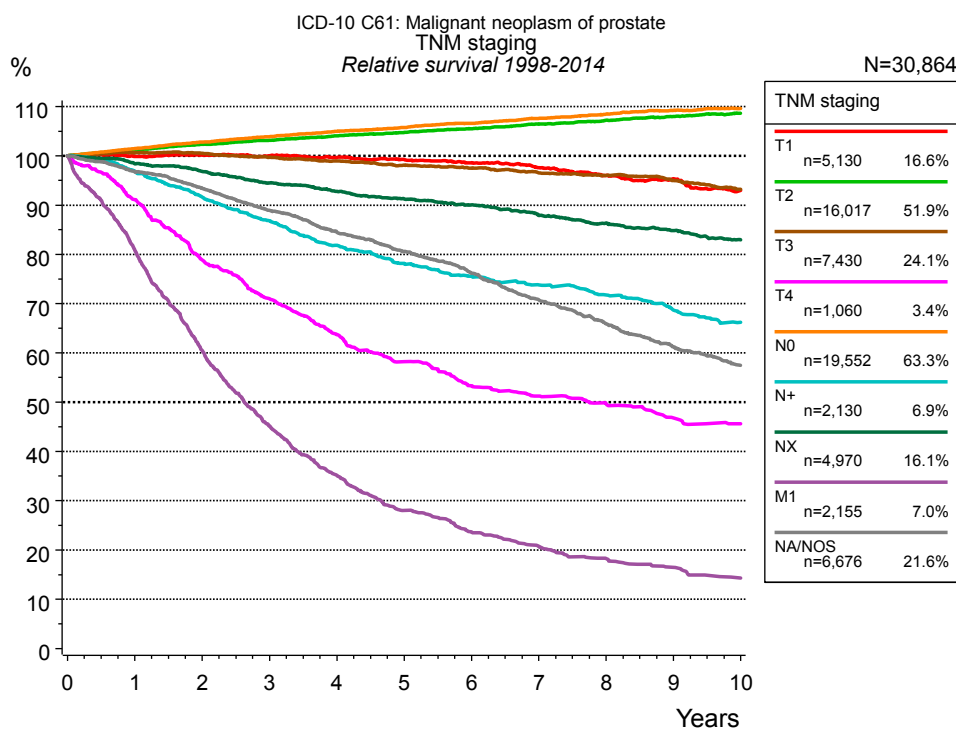TNM staging
Relative survival 1988-2014
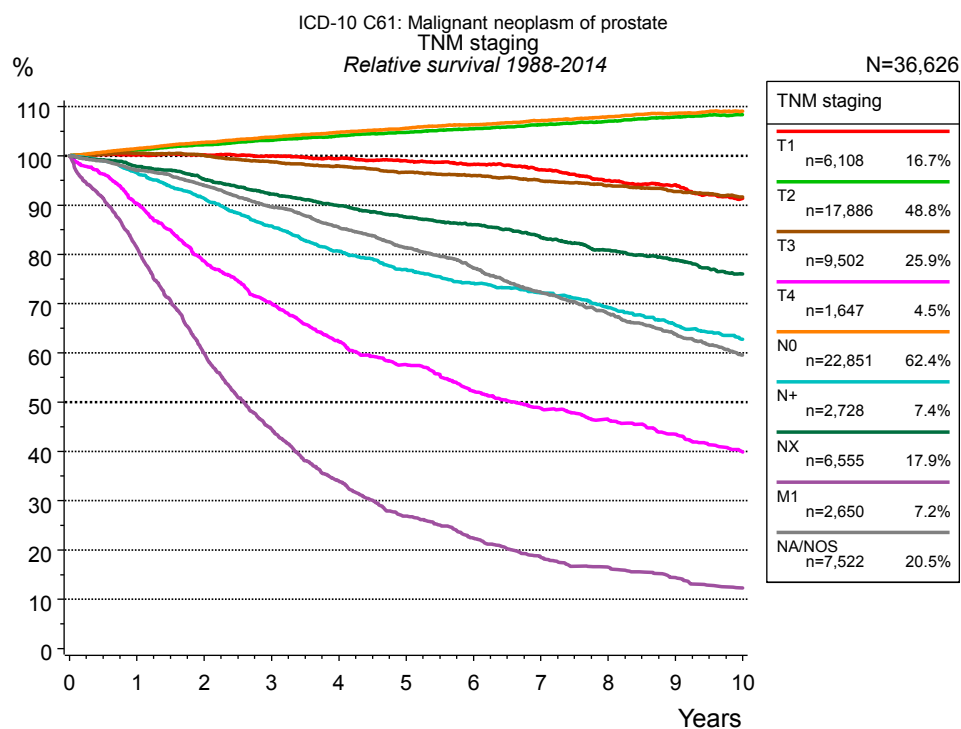
Figure 4a. Relative survival of patients with prostate cancer by TNM staging. For 36,746 of 44,148 cases diagnosed between 1988 and 2014 valid data could be obtained for this item. For a total of 36,626 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potientially considered in more than one subgroup. The grey line represents the subgroup of 7,522 patients with missing values regarding TNM staging (17.0 % of 44,148 patients, the percent values of all other categories are related to n=36,626).

	TNM staging												
	T1 n=6,108		T2 n=17,886		T3 n=9,502		T4 n=1,647		N0 n=22,851		N+ n=2,728		NX n=6,555	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	95.7	100.1	98.7	101.2	97.7	100.5	86.3	90.3	99.1	101.5	94.1	96.5	93.0	97.8
2	91.3	100.2	97.1	102.2	94.4	100.1	72.0	78.6	97.8	102.7	86.7	91.3	86.2	95.2
3	86.8	99.9	95.3	103.2	90.4	98.8	61.5	70.0	96.3	103.8	79.2	85.8	79.4	92.3
4	82.2	99.4	93.4	104.0	86.8	97.9	52.4	62.3	94.5	104.8	72.4	80.7	73.4	89.9
5	77.7	99.0	91.2	104.7	82.8	96.7	46.4	57.6	92.4	105.6	67.0	76.9	67.8	87.6
6	73.1	98.3	89.0	105.5	79.4	96.0	40.4	52.2	90.2	106.3	62.5	74.1	63.1	86.0
7	68.4	97.2	86.7	106.3	75.7	94.9	36.1	48.7	87.9	107.1	58.9	72.2	57.8	83.3
8	63.1	95.0	84.3	107.0	72.1	94.0	32.9	46.4	85.5	107.9	54.4	69.2	53.0	80.9
9	58.9	94.1	81.8	107.9	68.4	92.7	29.6	43.5	82.9	108.6	49.7	65.6	48.8	78.9
10	53.8	91.4	79.0	108.3	64.7	91.7	25.8	39.8	79.9	109.0	45.8	62.8	44.3	76.0

cont'd	TNM staging			
	M1 n=2,650		NA/NOS n=7,522	
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	77.7	81.3	92.1	97.0
2	54.9	59.9	84.5	94.0
3	39.1	44.5	76.3	89.7
4	28.6	34.0	68.6	85.4
5	21.7	26.8	61.5	81.3
6	17.3	22.4	54.9	77.2
7	13.7	18.5	48.3	72.3
8	11.7	16.5	42.5	68.0
9	9.7	14.4	37.4	63.8
10	8.0	12.3	32.6	59.6

Table 4b. Observed (obs.) and relative (rel.) survival of patients with prostate cancer by TNM staging for period 1988-2014 (N=36,626).

ICD-10 C61: Malignant neoplasm of prostate
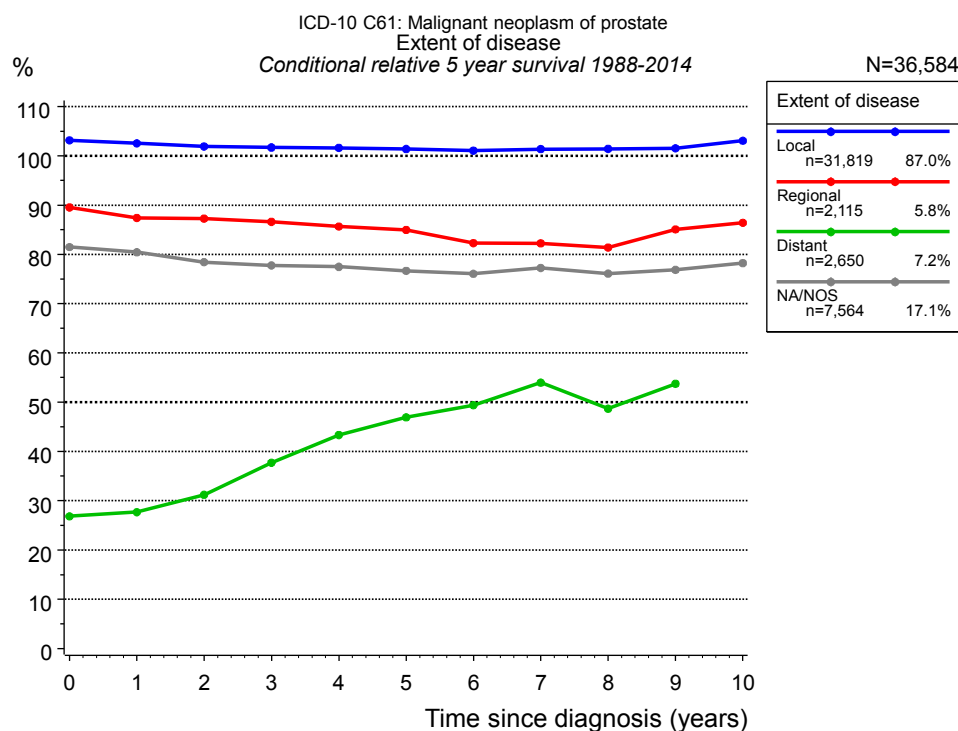TNM staging
Relative survival 1998-2014

Figure 4c. Relative survival of patients with prostate cancer by TNM staging. For 30,972 of 37,540 cases diagnosed between 1998 and 2014 valid data could be obtained for this item. For a total of 30,864 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potientially considered in more than one subgroup. The grey line represents the subgroup of 6,676 patients with missing values regarding TNM staging (17.8 % of 37,540 patients, the percent values of all other categories are related to n=30,864).

	TNM staging												
	T1 n=5,130		T2 n=16,017		T3 n=7,430		T4 n=1,060		N0 n=19,552		N+ n=2,130		NX n=4,970	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	95.7	99.9	98.8	101.2	98.1	100.6	87.9	91.1	99.3	101.5	94.6	96.8	94.3	98.4
2	91.8	100.1	97.5	102.3	95.5	100.5	73.4	78.9	98.2	102.8	87.3	91.6	88.9	96.8
3	87.6	100.0	95.7	103.2	92.2	99.7	63.9	71.0	96.9	103.9	80.6	86.8	83.0	94.5
4	83.3	99.7	93.9	104.1	88.9	99.0	55.2	63.7	95.4	105.0	74.0	81.8	77.9	92.8
5	78.9	99.2	91.8	104.7	85.5	98.1	48.7	58.2	93.4	105.7	68.8	78.1	73.1	91.3
6	74.6	98.6	89.7	105.5	82.3	97.5	43.2	53.3	91.4	106.6	64.6	75.6	68.7	90.0
7	69.9	97.6	87.6	106.4	78.8	96.5	39.9	51.2	89.4	107.6	61.1	73.8	63.8	87.9
8	65.0	96.0	85.3	107.2	75.7	96.0	37.2	49.6	87.1	108.4	57.4	71.7	59.6	86.3
9	61.0	95.4	82.9	108.0	72.1	95.0	33.8	46.8	84.7	109.2	53.0	68.7	55.6	84.8
10	56.0	92.9	80.3	108.6	67.9	93.2	31.6	45.6	81.8	109.6	49.3	66.2	51.5	83.0

	TNM staging			
cont'd	M1 n=2,155		NA/NOS n=6,676	
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	77.4	80.8	91.9	96.7
2	55.8	60.5	84.2	93.4
3	40.0	45.1	76.0	88.9
4	30.0	35.1	68.3	84.5
5	23.0	28.0	61.4	80.6
6	18.6	23.7	54.6	76.2
7	15.7	20.8	47.7	70.8
8	13.2	18.2	41.6	65.9
9	11.4	16.5	36.2	61.3
10	9.6	14.4	31.7	57.5

Table 4d. Observed (obs.) and relative (rel.) survival of patients with prostate cancer by TNM staging for period 1998-2014 (N=30,864).

ICD-10 C61: Malignant neoplasm of prostate
Extent of disease
*Conditional relative 5 year survival 1988-2014*

Figure 4e. Conditional relative 5-year survival of patients with prostate cancer by extent of disease. For 36,746 of 44,148 cases diagnosed between 1988 and 2014 valid data could be obtained for this item. For a total of 36,584 cases an evaluable classification was established. The grey line represents the subgroup of 7,564 patients with missing values regarding extent of disease (17.1% of 44,148 patients, the percent values of all other categories are related to n=36,584).

| | Extent of disease | | | | | | | |
| | Local | | Regional | | Distant | | NA/NOS | |
Years	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs
0	31,819	103.2	2,115	89.5	2,650	26.8	7,564	81.5
1	29,572	102.6	1,927	87.4	1,964	27.7	6,532	80.5
2	27,509	101.9	1,734	87.3	1,292	31.2	5,673	78.4
3	25,060	101.7	1,497	86.6	851	37.7	4,665	77.8
4	22,757	101.6	1,286	85.7	575	43.3	3,775	77.5
5	20,541	101.4	1,097	85.0	400	46.9	3,098	76.7
6	18,292	101.1	946	82.3	291	49.4	2,568	76.1
7	15,899	101.4	794	82.3	195	54.0	2,078	77.2
8	13,462	101.4	654	81.4	152	48.7	1,678	76.1
9	11,473	101.5	547	85.1	112	53.7	1,352	76.9
10	9,546	103.1	447	86.4			1,064	78.2

Table 4f. Conditional relative 5-year survival of patients with prostate cancer by extent of disease for period 1988-2014 (N=36,584).

Conditional relative survival rates refer to the relative survival probability, in this case for 5 years after cancer diagnosis, compared to the age- and sex-matched population (=100%) under the condition of being alive for a certain time period (x-axis in Figure 4c). The results illustrate to what extent the cancer induced mortality of particular subgroups declines in the subsequent years after detection of the malignancy. For instance, according to the presented survival statistics, patients in the subgroup extent of disease="Local", who are alive at least 3 years after cancer diagnosis, the conditional relative 5-year survival rate is 101.7% (n=25,060).

ICD-10 C61: Malignant neoplasm of prostate
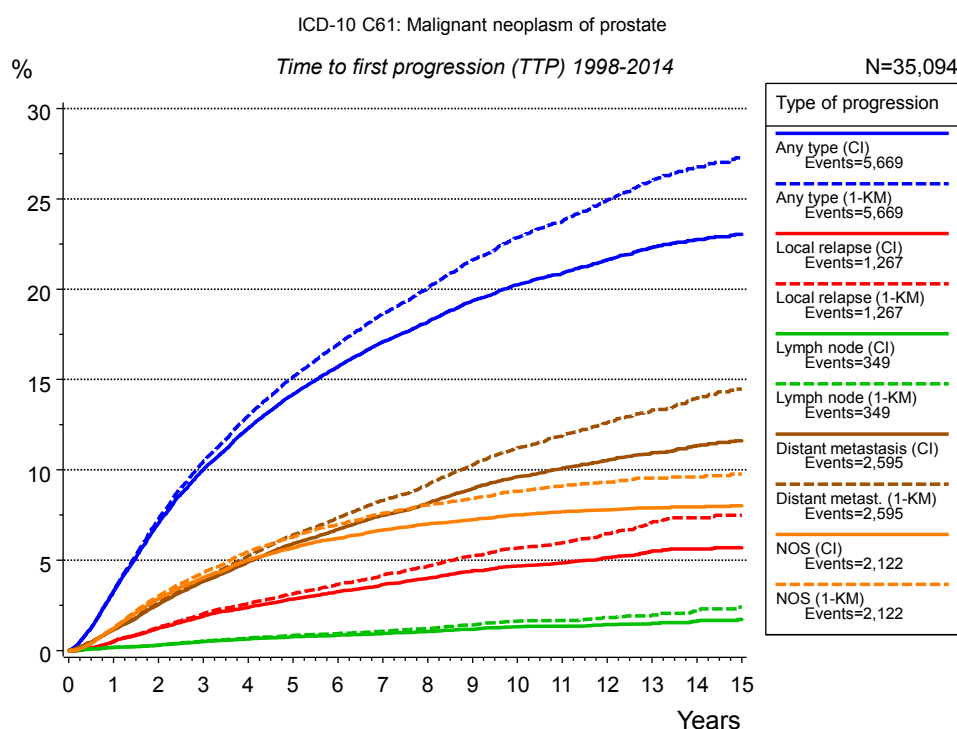
Figure 5a. Time to first progression of 35,094 patients with prostate cancer diagnosed between 1998 and 2014 (M0 only in solid cancers) estimated by cumulative incidence function (CI, solid line) accounting for death as competing risk and by inverse Kaplan-Meier estimate (1-KM, dashed line). The frequency of events may be underestimated due to underreporting.

	Type of progression						
	Any type (CI)	Any type (1-KM)	Local relapse (CI)	Local relapse (1-KM)	Lymph node (CI)	Lymph node (1-KM)	Distant metastasis (CI)
	n=35,094	n=35,094	n=35,094	n=35,094	n=35,094	n=35,094	n=35,094
Years	%	%	%	%	%	%	%
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	3.3	3.3	0.5	0.5	0.2	0.2	1.2
2	7.0	7.3	1.2	1.3	0.3	0.3	2.5
3	10.0	10.4	1.9	2.0	0.5	0.5	3.8
4	12.3	13.0	2.4	2.6	0.6	0.7	4.9
5	14.2	15.1	2.9	3.1	0.8	0.8	5.9
6	15.7	16.9	3.3	3.7	0.8	0.9	6.7
7	17.1	18.7	3.7	4.2	0.9	1.1	7.5
8	18.2	20.0	4.0	4.7	1.0	1.2	8.1
9	19.4	21.6	4.4	5.3	1.2	1.4	9.0
10	20.3	22.9	4.7	5.7	1.3	1.6	9.6
11	20.9	23.8	4.9	6.0	1.3	1.7	10.1
12	21.6	24.9	5.1	6.5	1.4	1.8	10.5
13	22.3	26.0	5.5	7.1	1.5	2.0	11.0
14	22.8	26.8	5.6	7.3	1.6	2.2	11.3
15	23.0	27.3	5.7	7.5	1.7	2.4	11.6

cont'd	Type of progression		
	Distant metast. (1-KM)	NOS (CI)	NOS (1-KM)
	n=35,094	n=35,094	n=35,094
Years	%	%	%
0	0.0	0.0	0.0
1	1.2	1.2	1.3
2	2.6	2.9	3.0
3	4.0	4.0	4.3
4	5.2	5.0	5.5
5	6.4	5.7	6.3
6	7.3	6.2	7.0
7	8.3	6.7	7.6
8	9.2	7.0	8.1
9	10.3	7.2	8.4
10	11.2	7.5	8.8
11	11.9	7.7	9.1
12	12.6	7.8	9.3
13	13.3	7.9	9.5
14	14.0	7.9	9.6
15	14.5	8.0	9.8

Table 5b. Time to first progression of patients with prostate cancer for period 1998-2014 (N=35,094).

ICD-10 C61: Malignant neoplasm of prostate
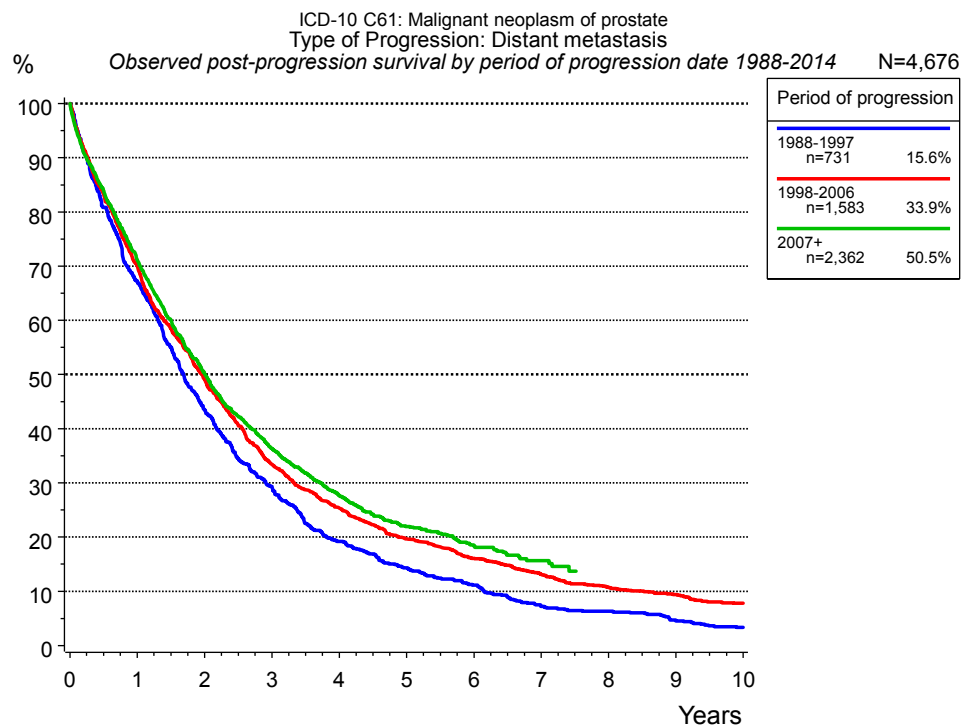Progression type
Observed post-progression survival 1998-2014
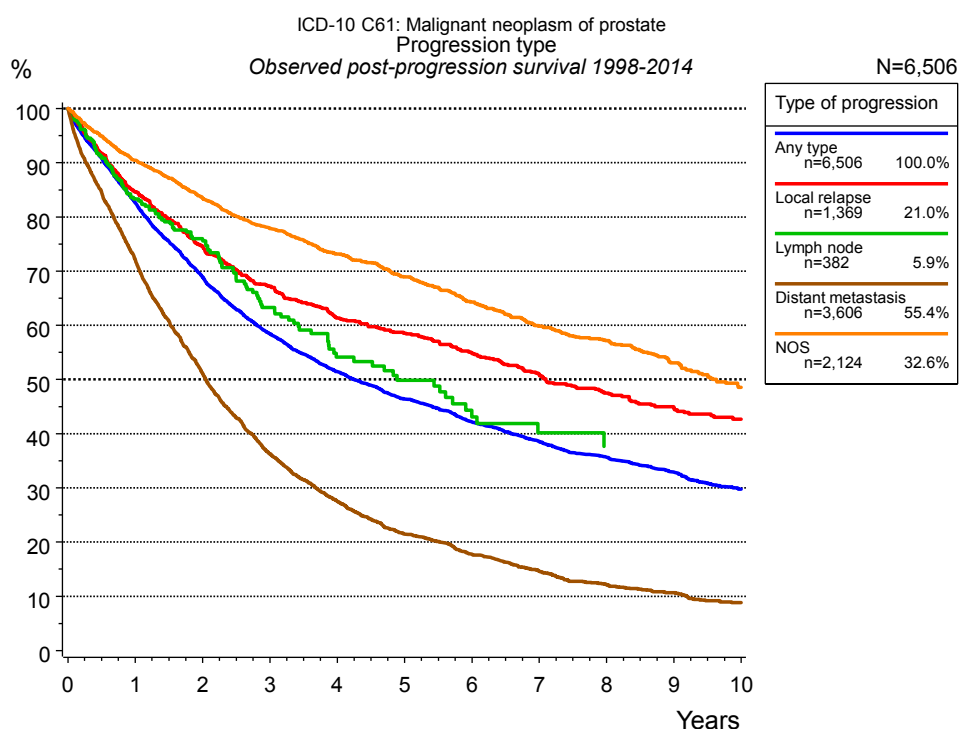
Figure 5c. Observed post-progression survival of 6,506 patients with prostate cancer diagnosed between 1998 and 2014. These 6,506 patients with documented progression events during their course of disease represent 17.5 % of the totally 37,229 evaluated cases (incl. M1, n=2,135, 5.7 %). Patients with cancer relapse documented via death certificates only were excluded (n=1,298, 3.5 %). Multiple progression types on different sites are included in the evaluation even when not occuring synchronously. The NOS (not otherwise specified) class is included under the condition, that it is the one and only progression type during the course of disease.

Medical record documentation often lacks the linguistic severity to distinguish between local relapse, regional lymph node metastasis and distant spread in solid cancers. Frequently, the statement "not specified" is the only information in registries regarding relapse of the disease. The category "Any type" denotes all cases who suffered from at least one relapse during the course of disease (incl. primary M1-status). Although, the real number of relapsed patients is likely to be much higher. The accumulated percentage of patients with local relapse or distant metastasis exceeds the 100% value because patients are potientially considered in more than one subgroup.

	Type of progression				
	Any type n=6,506	Local relapse n=1,369	Lymph node n=382	Distant metastasis n=3,606	NOS n=2,124
Years	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
1	82.6	84.6	83.3	72.0	90.5
2	68.9	74.6	75.6	51.2	83.5
3	58.4	67.2	63.3	36.3	77.9
4	51.4	61.4	54.1	27.6	73.2
5	46.3	58.6	49.8	21.5	68.9
6	42.2	54.9	43.1	17.7	64.3
7	38.6	51.0	40.2	14.7	59.8
8	35.6	47.5	37.7	12.2	57.2
9	32.9	44.7		10.7	53.1
10	29.8	42.7		8.9	48.6

Table 5d. Observed post-progression survival of patients with prostate cancer for period 1998-2014 (N=6,506).

ICD-10 C61: Malignant neoplasm of prostate
Type of Progression: Distant metastasis
Observed post-progression survival by period of progression date 1988-2014   N=4,676

Figure 5e. Observed post-progression (distant metastasis) survival of 4,676 patients with prostate cancer diagnosed between 1988 and 2014 by period of progression.

	Period of progression		
	1988-1997 n=731	1998-2006 n=1,583	2007+ n=2,362
Years	%	%	%
0	100.0	100.0	100.0
1	67.2	69.9	71.1
2	43.5	49.1	50.2
3	29.3	33.4	36.4
4	19.2	25.4	27.7
5	14.3	19.6	22.0
6	11.1	16.1	18.3
7	7.2	13.2	15.7
8	6.3	10.8	
9	4.5	9.4	
10	3.3	7.8	

Table 5f. Observed post-progression (distant metastasis) survival of patients with prostate cancer for period 1988-2014 by period of progression (N=4,676).

Shortcuts

MCR	Munich Cancer Registry, Germany	
NCI	National Cancer Institute, USA	
SEER	Surveillance, Epidemiology, and End Results, USA	
UICC	Union for International Cancer Control, Geneva	
DCO	Death certificate only	Death certificate provides the only notification to the registry.
NA	Not available	
NOS	Not otherwise specified	
OS	Overall/Observed survival	Overall/Observed survival (Kaplan-Meier estimate) Date of entry: diagnosis Event: death from any cause
RS	Relative survival	Survival compared to "general population", ratio of observed to expected survival (Ederer II method), reflecting cancer specific survival
AS	Assembled survival	Assembled chart of observed, expected, relative survival
CS	Conditional survival	Survival probability under the condition of surviving a given period of time
TTP	Time to progression	Time to first progression / relapse Date of entry: diagnosis Event: (progression / relapse): first local-, lymph node recurrence, distant metastasis or unspecified progression
	1-KM	1 minus Kaplan-Meier estimator ("inverse" Kaplan-Meier estimator)
	CI	Cumulative incidence Death as competing risk (according to Kalbfleisch und Prentice)
PPS	Post-progression survival	Survival since first progression / relapse (Kaplan-Meier estimate) Date of entry (progression / relapse): first local-, lymph node recurrence, distant metastasis or unspecified progression Event: death from any cause

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